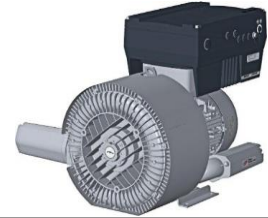




Elmo Rietschle

IE3

C<sup>UL</sup> US



# G-BH1 e Data sheet 2BH1 610

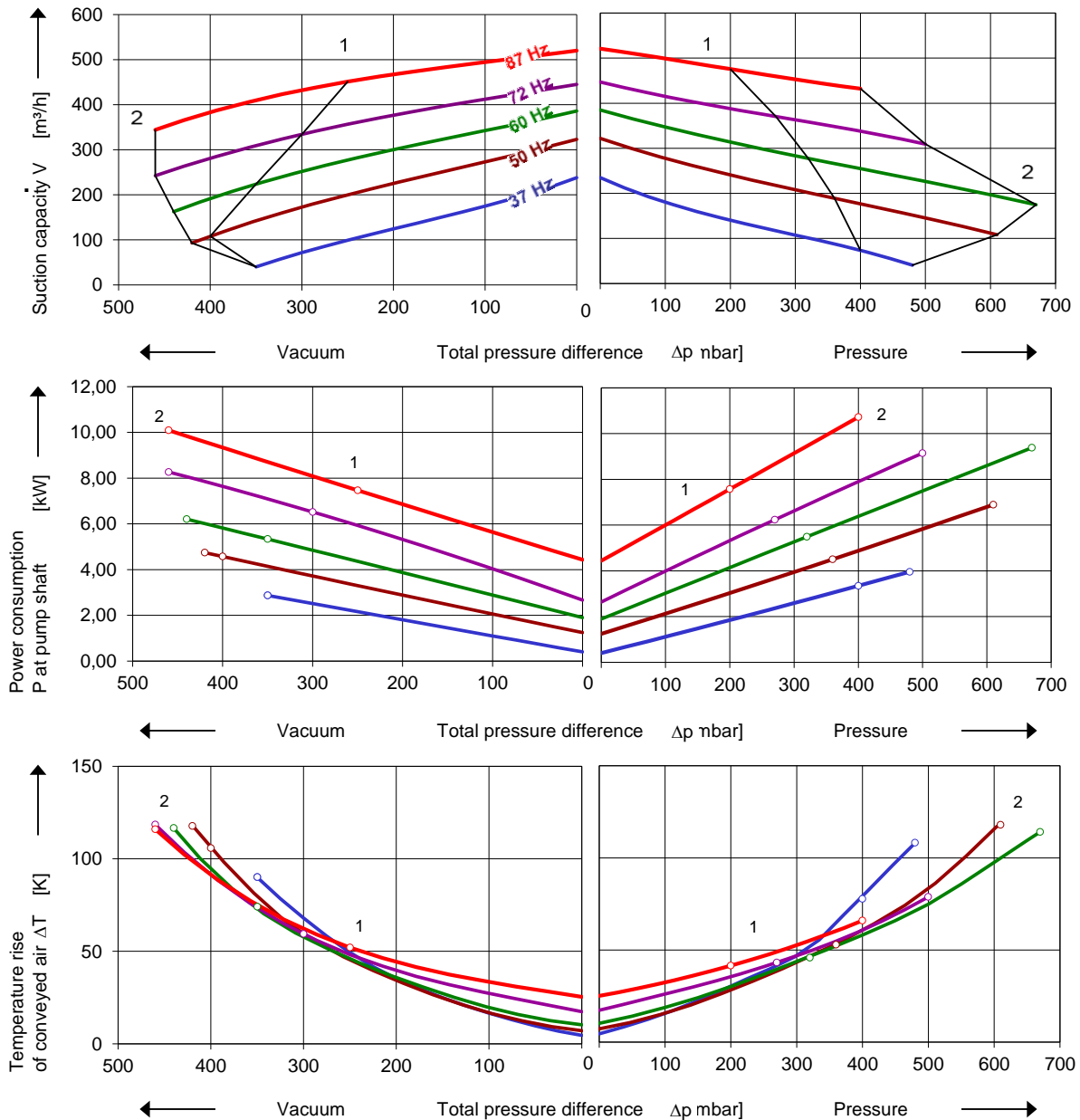
Side channel blower with Frequency Converter



## Performance curves

Vacuum operation

Compressor operation



The performance curves are based on air at a temperature of 15 °C and an atmospheric pressure of 1013 mbar with a tolerance of ± 10 %. The total pressure differences are valid for suction and ambient temperature up to 25 °C. For other conditions please get in touch with us.

The performance curves are based on frequency converter operation and a pulse frequency of 4 kHz minimum. Rated voltage/frequency set point is 345 V / 87 Hz and delta connection of motor. Frequency converters must be connected to a mains voltage of 380 V minimum.

## Selection and ordering data

### Type 2BH1 610

No.	Fre- quency	Rated motor			Max. differential pressure <sup>1)</sup>		Sound pressure level <sup>2)</sup>	Weight Approx.	Order No.	VFD type		
		Voltage	Current	Power	Vacuum	Pressure						
		V	A	kW	mbar	mbar	dB(A)	kg				
<b>IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450</b>												
1	87	380 Y	14,9 Y	7,5	-250	200	79	76/77	73	75	2BH1610-1H336	F
2	87	380 Y	27,4 Y	14,0	-460	400	84	77/78	105	107	2BH1610-1H356	G
<b>IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>												
	37	-	-	-	-270	270	73	76/77	58	60	2BH1610-1HK26	E
	50	-	-	-	-270	260	75					
	60	-	-	-	-230	200	73					
1	87	400 Δ	11,0 Δ	5,8	-80	60	81	76/77	65	67	2BH1610-1HK36	F
	37	-	-	-	-350	400	66					
	50	-	-	-	-400	360	67					
	60	-	-	-	-350	320	71					
	87	400 Δ	14,4 Δ	7,5	-250	200	79	77/78	73	75	2BH1610-1HK46	G
	37	-	-	-	-320	480	69					
	50	-	-	-	-420	530	71					
	60	-	-	-	-440	490	75					
	85	400 Δ	20,4 Δ	10,2	-440	370	84					
2	37	-	-	-	-320	480	69	77/78	85	87	2BH1610-1HK56	G
	50	-	-	-	-420	610	71					
	60	-	-	-	-440	670	75					
	85	400 Δ	26,0 Δ	14,0	-460	400	84					

With separately driven fan (order option G17)<sup>4)</sup>

- We recommend differential pressure indicators / switches for limiting differential pressure. Relief valves are only useable at defined frequency.
- Measuring surface sound pressure level acc. to EN ISO 3744, measured with an equivalent unit at a distance of 1 m. The pump is throttled to an average suction pressure, with piping connected, but no relief valves fitted, tolerance ±3 dB (A).
- PTC recommended for motor overload protection. Ordering example: 2BH1610- □□□□-Z Z=A11
- Sound pressure level with G17 dependent on voltage (50Hz / 60Hz)

All G-BH match the 2006/42/EC (machinery) and 2014/35/EU (low voltage) directives and the EN 60034 norm "Rotating electrical machines".  
The motors comply with EN 60 034 (IEC 60034) and thermal class F.

## Frequency converter (IP55) motor integrated / for wall mounting

Frequency Converter		Rated mains voltage	Max. motor current	Typical motor power	Rated mains current	Fuse Protection	Weight Approx.	Adaptor for wall mounting
Order No.								V
A	2FC4152-1 □□ 00	400V (-15%) ... 480V (+10%)	4,0	1,5	3,3	10	3,9	2FX16190ER00
B	2FC4222-1 □□ 00		5,6	2,2	4,6	10	5,0	2FX16490ER00
C	2FC4302-1 □□ 00		7,5	3,0	6,2	16		
D	2FC4402-1 □□ 00		9,5	4,0	7,9	16		
E	2FC4552-1 □□ 00		13,0	5,5	10,8	20	8,7	2FX16690ER00
F	2FC4752-1 □□ 00		17,8	7,5	14,8	25		
G	2FC4113-1 □□ 00		28,0	11,0	23,3	35	21,0	2FX16990ER00
H	2FC4153-1 □□ 00		34,0	15,0	28,3	50		
J	2FC4183-1 □□ 00		40,0	18,5	33,3	50		
K	2FC4223-1 □□ 00		48,0	22,0	39,9	63		

### I/O's and automation

	Order option	Example:
ST 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS	STANDARD	2BH1610-1H336-Z Z=U51 VFD type 2FC4752-1PB00 to be delivered already installed
PB 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiBus interface	Z = U51	
CB 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / CANopen interface	Z = U52	
PN 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiNet interface	Z = U53	
SC 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / SERCOS3 interface	Z = U54	

## VFD accessories

Item	Order No.	Item	Order No.
<b>Manual control</b>		<b>Differential pressure transmitters</b>	
MMI handheld	2FX4520-0ER00	Vacuum -1000 ... 0 mbar	2FX6022-0BD00
USB adaptor cable	2FX4521-0ER00	Pressure 0 ... 600 mbar	2FX6013-0BD00
		0 ... 1000 mbar	2FX6014-0BD00
<b>INVERTERpc Software</b>			
Free download at <a href="http://www.gd-elmorietschle.com">www.gd-elmorietschle.com</a> >Downloads >frequency-converters >Miscellaneous >Software			

Changes in particular of the quoted performance curve, data and weights may occur without prior notice. The data given does not constitute an obligation from our side to deliver as show

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